REMARKS

Applicants respond hereby to the outstanding final Office Action mailed July 18, 2007, in the above-identified application. Claims 7-10, 12-15 and 17 are amended hereby. Each of claims 7-18 remain pending for prosecution hereinafter, where claims 7, 8, 9, 10, 12, 13, 14, 15 and 17 are the independent claims.

Response To Rejection Under 35 USC §102

At paragraphs [3-17] of the outstanding final Office Action, the Examiner rejects claims 7-18 under 35 USC 102 (a) as anticipated by US Published Patent Application No. 2003/0085994 to Fujita, et al. (Fujita).

At paragraphs [05], the Examiner asserts that Fujita discloses a capsular medical system comprising a capsular in-body unit ("capsule endoscope 3" [0074]) having a radio communication device ("antenna 23," [0074]) which is inserted or swallowed to be introduced to the body cavity; an extracorporeal device ("external unit 5," [0070]) having a communication device for communication with the in-body unit, which is arranged outside the human body; and at least two antennas (multiple antennas 11a to 11d," [0070]) which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device ("antenna switch 45," [0071]) which switches the antennas; a detecting device ("receiving circuit 33," [0075]) which detects a communication state, and an antenna selecting device ("antenna select circuit 46," [0075]) which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state.

At page 26 of applicants' translated Specification, the paragraph beginning at line 19, applicants state that, (in the extracorporeal device) the timing for switching the antenna is synchronously operated at the timing for switching the communication direction of the reception and transmission. In the case of switching to each antenna, the signals are transmitted and received and further the antenna is switched at the timing for switching the timing to that of the next transmission. Accordingly, the invention as claimed operates so that interruption to communication between the capsular in-body unit and extracorporeal device is eliminated by switching an antenna used during sending and receiving communication depending on receive

strength. The ability to switch antenna during a communication ensures smoother sending and receiving operations.

Claim 7

At paragraph [06], the Examiner asserts with respect to independent claim 7, that Fujita's capsular medical system inherently operates the switching device at a switching timing in accordance with the detected communication state [0075].

In response, applicants have amended claim 7 to recite a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, at least two antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas and a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving from, the extracorporeal device. The extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction between receiving and transmitting in accordance with the detected communication state of one of receiving and transmitting.

Fujita's receiving circuit 33 [0075] is not equivalent to the claim 7 capsular medical system, as amended. The invention as claimed includes a detecting device that detects a communication state including a transmitting state for transmitting to, and a receiving from, the extracorporeal device. The extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction between receiving and transmitting in accordance with the detected communication state of one of receiving and transmitting, in accordance with the detected communication state of one of receiving and transmitting.

Applicants, therefore, respectfully request the withdrawal of the rejection of independent claim 7 under Section 102(a) in view of Fujita.

Claim 8

At paragraph [07] of the outstanding Office Action, the Examiner asserts with respect to independent claim 8 that Fujita discloses an antenna selecting device that performs the "operation" at the time interval set by a timer ("sequentially selected," [0073]; "repeated at intervals of proper period of time." [0083]). Applicants respectfully disagree.

Applicants' independent claim 8 sets forth a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state of the including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device and an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the antenna selecting device performs the operation within a time interval set by a timer.

Fujita's description at paragraph [73] merely describes how transmissions are sent through the send/receive switch using antennas 11a-11d. Fujita does not teach or suggest a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device, and the antenna selecting device detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state, performing the operation at the time interval set by a timer. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the antenna selecting device performs the operation within a time interval set by a timer.

Applicants, therefore, respectfully request withdrawal of the rejection of claim 8 under Section 102(a) in view of Fujita.

Claim 9

At paragraph [08] of the final Office Action, the Examiner asserts with respect to independent claim 9 that Fujita discloses that its detecting device performs the operation at the time interval set by a timer and when a communication state is deteriorated, the antenna is switched ("the antenna 11i, through which the highest radio wave strength data can be received, must be changes," [0083]). Applicants respectfully disagree.

Applicants' independent claim 9 sets forth a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including transmitting to and receiving from the extracorporeal device and an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the detecting device performs the operation within a time interval set by a timer and, when a communication state is deteriorated, the antenna is switched.

Applicants find that the Examiner's paragraph [08] argument fails to distinguish between the claim 9 detecting device and its antenna-selecting device, which are distinct and separate elements. Fujita does not teach a detecting device, which detects a communication state including transmitting to and receiving from the extracorporeal device, and an antenna-selecting device, which detects a receiving strength, in the in-body unit, of signals, transmitted from at least two antennas to select an antenna in a preferable receiving and transmitting state, and the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and the detecting device performs the operation within a time interval set by a timer. When a communication state is deteriorated, the antenna is switched.

Applicants, therefore, respectfully request the withdrawal of the rejection of claim 9 under Section 102(a) in view of Fujita.

Claim 10

At paragraph [09] of the outstanding Office Action, the Examiner asserts with respect to independent claim 10 that Fujita comprises a number of n antennas whose receiving and transmitting states are checked smaller than a number N of attached antennas when switching the antennas, and it anticipates under 102(a). Applicants respectfully disagree.

Applicants' independent claim 10 recites a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including transmitting to and receiving from the extracorporeal device and an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, and a number n of antennas whose receiving and transmitting states are detected is less than a number N of all of the attached antennas at a time of antenna switching.

Fujita does not include a detecting device for detecting a communication state including a state of transmitting to and receiving from the extracorporeal device, still less where the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, as stated above. Applicants, therefore, respectfully assert that claim independent 10 is not anticipated by Fujita, and request withdrawal of the claim 10 rejection thereunder.

Claim 11

At paragraph [10] of the outstanding Office Action, the Examiner asserts with respect to dependent claim 11 that Fujita discloses that the antenna whose receiving and transmitting state is checked, and is determined based on the antenna, which currently receives data [0075]. In response, applicants respectfully assert that claim 11, which depends from independent claim 10, is patentable for at least the reasons set forth for the patentability of independent claim 10. Applicants, therefore, respectfully request reconsideration and withdrawal of the claim 11 rejection under section 102 in view of Fujita.

Claim 12

At paragraph [11] of the outstanding Office action, the Examiner asserts with respect to independent claim 12 that Fujita discloses a storing device for storing receiving and transmitting state ("memory 47," [0072]), wherein, when the receiving strength data is not obtained upon operating the antenna selecting device, the antenna which can communicate data is checked is selected to ensure the communication (antenna 11i," as noted above). Applicants respectfully disagree.

Applicants' independent claim 12 recites a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device, an antenna selecting device which detects a receiving strength, in the in-body unit, of signals transmitted from at least two antennas and selects the antenna in a preferable receiving and transmitting state, and a storing device for storing the receiving and transmitting state. When the receiving strength data is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication. Wherein the extracorporeal device operates the switching device at a switching timing synchronized with

switching of communication direction of the receiving and transmitting.

Fujita does not disclose a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device and the claimed storing device is for storing the receiving and transmitting state. Fujita's memory 47, as distinguished, is for storing received data from receiving circuit 33. Fujita does not include the limitation for use of its memory 47 that "when the receiving strength data is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication, and the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting.

Hence claim 12 is not unpatentable in view of Fujita under Section 102(a). Applicants, therefore, respectfully request withdrawal of the claim 12 rejection under Section 102(a) in view of Fujita.

Claim 13

At paragraph [12] of the outstanding Office Action, the Examiner asserts with respect to independent claim 13 that Fujita discloses the antenna-selecting device that operates at the time interval set by the timer, referring to the above rejections. Applicants respectfully disagree.

Applicants independent claim 13 recites a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device and an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting the antenna selecting device operates within a time interval set by a timer.

Fujita does not disclose a detecting device, which detects a communication state including a transmitting state for transmitting to, and receiving from, the extracorporeal device. Moreover, Fujita does not teach or suggest that the extracorporeal device operates the switching device at a switching timing synchronized with switching communication direction of the receiving and transmitting. Hence, and for at least the reasons set forth above. Claim 13, therefore, is not unpatentable under Section 102(a) in view of Fujita.

Applicants, therefore, respectfully request the withdrawal of the claim 13 rejection under Section 102(a) in view of Fujita.

Claim 14

At paragraph [13] of the outstanding Office Action, the Examiner asserts with respect to independent claim 14 that Fujita discloses a detecting device that performs the operation at the time interval set by the timer, and switches when a deteriorated state is detected, the Examiner referring to his prior arguments for preceding claims. Applicants respectfully disagree.

Applicants' independent claim 14 recites a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device and an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state. The extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting, wherein the detecting device performs the operation within a time interval set by a timer and wherein when a communication state is deteriorated, the antenna is switched.

Fujita does not disclose a detecting device that detects a communication state including a transmitting state for transmitting to, and receiving from, the extracorporeal device, and that the extracorporeal device synchronizes timing for switching the antenna with timing for switching

communication direction of the receiving and transmitting in accordance with the detected communication state of one of said transmitting and receiving, wherein the antenna selecting device operates within a time interval set by a timer, and wherein, when a communication state is deteriorated, the antenna is switched. Independent claim 14, therefore, is not anticipated by Fujita.

Applicants, therefore, respectfully request the withdrawal of the rejection of claim 14 in view of Fujita under Section 102(a).

Claim 15

At paragraph [14] of the outstanding Office Action, the Examiner asserts with respect to independent claim 15 that Fujita discloses having a number n of antennas whose receiving and transmitting states are checked smaller than a number N of attached antennas when switching the antennas. Applicants respectfully disagree.

Applicants' independent claim 15 sets forth a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity; an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body; a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device; a switching device which switches the antennas; a detecting device which detects a communication state; and an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state. A number n of antennas whose receiving and transmitting states are detected is less than a number N of all attached antennas at the time of antenna switching.

Fujita does not include a detecting device for detecting a communication state including a transmitting state for transmitting to, and receiving from, the extracorporeal device, and that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with the detected communication state of one of said transmitting and receiving, wherein a number of antennas whose receiving and transmitting states are detected is less than a number N of all attached antennas at the time of antenna switching. Applicants, therefore, respectfully assert that

independent claim 15 is not anticipated by Fujita under Section 102(a), and request withdrawal of the rejection of 15 thereunder.

Claim 16

At paragraph [15] of the outstanding Office Action, the Examiner asserts with respect to dependent claim 16 that Fujita discloses that the antenna whose receiving and transmitting state is checked is determined based on the antenna, which currently receives data. In response applicants respectfully assert that claim 16, which depends from claim 15, is patentable for at least the reasons set forth for the patentability of claim 15. Applicants, therefore, respectfully request reconsideration and withdrawal of the same claim rejection.

Claim 17

At paragraph [16] of the outstanding Office action, the Examiner asserts with respect to independent claim 17 that Fujita discloses that when data on the receiving strength is not obtained upon operating the antenna selecting device the antenna that can communicate data is checked is selected to ensure the communication (antenna 11a). Applicants respectfully disagree.

Applicants' independent claim 17 sets forth a capsular medical system comprising a capsular in-body unit having a radio communication device which is inserted or swallowed to be introduced to the body cavity, an extracorporeal device having a communication device for communication with the in-body unit, which is arranged outside the human body, a plurality of antennas which are arranged near the body surface to communicate data to the in-body unit connected to the extracorporeal device, a switching device which switches the antennas, a detecting device which detects a communication state including a transmitting state for transmitting to, and a receiving state for receiving from, the extracorporeal device, an antenna selecting device which detects a receiving strength of a signal transmitted from the in-body unit by at least two antennas and selects the antenna in a preferable receiving and transmitting state, a storing device for storing the receiving and transmitting state. When data on the receiving strength is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication, and wherein the extracorporeal device operates the switching device at a switching timing synchronized with

switching of communication direction of the receiving and transmitting.

Fujita does not include a detecting device for detecting a communication state including a transmitting state for transmitting to, and receiving from, the extracorporeal device, and that the extracorporeal device synchronizes timing for switching the antenna with timing for switching communication direction of the receiving and transmitting in accordance with the detected communication state of one of said transmitting and receiving, wherein, when data on the receiving strength is not obtained upon operating the antenna selecting device, the antenna able to communicate data is detected and selected to carry out the communication, and wherein the extracorporeal device operates the switching device at a switching timing synchronized with switching of communication direction of the receiving and transmitting.

Independent claim 17 is patentable in view of Fujita for at least these reasons, and the reasons set forth above. Applicants, therefore, respectfully request the withdrawal of the claim 17 rejection under Section 102(a) in view of Fujita.

Claim 18

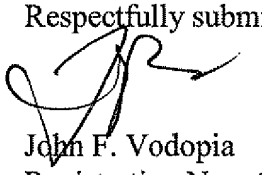
At paragraph [17] of the outstanding Office Action, the Examiner asserts with respect to dependent claim 18 that Fujita discloses that the detecting device selects one of at least two antennas arranged to communicate data to the in-body unit connected to the extracorporeal device, via the switching device, in response to the detected communication state corresponding to movement. In response applicants respectfully assert that claim 18, which depends from independent claim 7, is patentable for at least the reasons set forth for the patentability of independent claim 7. Applicants, therefore, respectfully request reconsideration and withdrawal of the claim 18 rejection under section 102 in view of Fujita.

Conclusion

Applicants respectfully assert, therefore, that each of pending claims 7-18 are patentable under 35 USC § 102(a) in view of Fujita for at least the reasons mentioned, and request withdrawal of the rejection of claims 7-18 in view of Fujita thereunder. Accordingly, applicants urge the Examiner to reconsider the rejection of claims 7-18, allow the claims and allow the application to issue.

If the Examiner believes that a telephone conference with applicants' attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully submitted,



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